

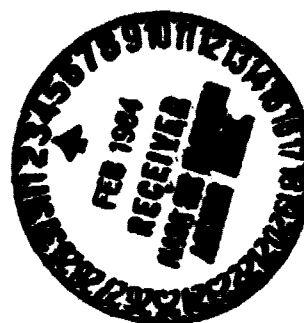
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VISITING "SPACEMEN"

An Sen



Translation of "Fang 'Tai Kong Ren' ", Ba Xiaoshi  
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## Visiting "Spacemen"

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In December of 1982, two guests that had returned from space came from the ocean's opposite shore to visit China. The first order of business when they set foot upon our territory was to permeate them with the enthusiasm of the concerned parties of our country and to present them with the Chinese National Flag--the five-starred red flag. This was the flag that had accompanied them in space for eight days and eight nights, revolving around the earth for 129 orbits. / 26\*

These two guests were the pilot Jack Robert Lousma and space navigator Charles Fullerton, of the American spacecraft "Columbia". The two prized guests visited the cities of Bei Jing, Xi An, Shang Hai, and Hang Zhou in our country. Upon arrival in each area, in their introductory speech, both would say with pride and joy to the local people that from the "Columbia" they could many times use the naked eye to look upon the towering giant of the eastern world, our beautiful country, the People's Republic of China. Today, they had personally come to the place they had long yearned to see, and they felt especially happy.

Lousma and Fullerton, from March 22nd to March 30th of 1982, participated in the third test flight of the spacecraft "Columbia". As you can see in the photograph, the person wearing the deep-colored overcoat is the third test flight spacecraft commander Lousma. He is a Lieutenant Colonel in the United States Marine Corps. He is 46 years old this year, and is the father of four children. He is a graduate of Michigan State University. In 1973, he participated in America's first flight of an experimental space station, and endured 58 complete days and nights in space. The other person wearing the lighter-colored overcoat is Fullerton, the pilot. He is a Lieutenant Colonel in the Air Force and is 45 years old. He has received two academic degrees from the Science and Engineering Institute of

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\*Numbers in margin indicate foreign pagination

California State University in America. The two astronauts both have over twenty years experience as fighter pilots and have rich and abundant experience and knowledge in aviation.

The author (TN: of this article) had an opportunity to visit with them. Lousma and Fullerton were both very bright and invigorating conversationalists. Although the introduction was very brief, it was enlightening, nonetheless.

The topic of conversation began with how one becomes an astronaut. Lousma nodded his head and said with a smile, "We all volunteer by submitting our names. Of course, we have to go through the various examinations and approvals of the department." The United States currently has 80 spacecraft (TN: shuttle) astronauts. The age of the oldest astronaut is 50, and the youngest one is 39.

For the two astronauts, one is 1.80 meters in height, the other 1.85 meters in height. "To begin with, we (TN: the astronauts) must meet the physical size requirements for astronauts." They said that it is all right to be a little too short or a little too tall; the aircraft compartment is comparatively spacious. Furthermore, to be an astronaut, you cannot be overweight or underweight. Actually, to become an astronaut, the physical condition of the body is merely one aspect; it is most important to have an alert and resourceful brain, extensive knowledge, and proficiency in astronavigational technology. As you may understand, embodied in the spacecraft are many sophisticated scientific technologies. Entering the compartment of the "Columbia" is like walking directly into a world of instruments and gauges. Close and numerous, large and small, of every type and kind, everything is instruments and gauges. Still, there are over 2,100 buttons, digital counters, and every type of spare part. To work as an astronaut, they not only must comply with their procedures and correctly operate (TN: the craft), but must also have the ability to repair malfunctions. Besides this, to be an astronaut requires an

abundance of academic knowledge and learning. They should first be scholars in navigational engineering, and have more than five years experience in flying, and in regards to the software of the spacecraft's electronic brain, they need over 1000 hours of operational control experience. On board the spacecraft they are also required to conduct a few scientific missions. Because of this, they should also be specialists in these areas of science.

Before the astronauts take off, they have a great many things that must be done. They are required to review a full year's worth of training. In the spacecraft simulator they practice at the controls of every complicated instrument and study its procedures; they study how to contact the ground with each type of (communications) equipment, etc.

"Piloting the spacecraft through the immense void of space is frightening, isn't it?" It is possible some people are thinking this. Astronaut Fullerton explained it like this: "These types of fears are unnecessary, because the specialists who designed the spacecraft carefully considered every safety factor in it. The many pieces of equipment on board the craft are all mutually "supported". If a spare is lost in use, there is an automatic backup or replacement "function". To add it to the astronaut's perfect mastery of the basic skills and his faith in the overall success of the mission (TN: sic), there is no need to feel any fear." The life expectancy of the "Columbia" is very long. According to design, it can make over 100 flights. At present, it has made only five flights.

Lousma and Fullerton roamed through space for eight days and eight nights, making 129 orbits around the earth, navigating over 5,000,000 kilometers. The velocity of the flight may well be termed lightning speed; for every second of the clock, eight kilometers are travelled. A complete revolution around the

earth takes ninety minutes. From the cosmos above the center of America's Ti Qi Dun (TN: translated placename, somewhere in cen. USA) to the capital of our country, Beijing, takes only 24 minutes. The two astronauts have had the pleasure of seeing something that would be extremely difficult for the rest of mankind to see and enjoy; with only 24 hours in a day, they have seen the sun rise and set 16 times in the same day.

"What does the earth look like from on board the spacecraft? What can you see of China proper?" They said with exuberance that "Columbia" has ten windows, and you can use a telescope, or you can use the naked eye to look from space at the mother of mankind-- the planet earth. To look at the earth from space, it appears with an unspeakable beauty, the colors are dazzling with the blue oceans, the green terrain, the mosaic of mountain peaks-- it has an abundance of color similar to a stereoscopic map.

Commander Lousma continued to say that when he was little he knew of China, and that China was something he had always looked forward to seeing. From space he had looked upon China many hundreds of times. On board the "Columbia", one can distinctly see the plateaus of Tibet, the Shan Dong Peninsula, the Yangtze River, and the Yellow River, as well as the hidden (TN: char. illeg.) islands of the Yellow River. The Gobi Desert in the photograph appears extraordinarily inviting.

These two astronauts took color photographs of the Yantze River and the Yellow River. In a photograph of Shang Hai, you can see the mouth of the Yellow River. They brought these precious photographs with them from the United States and enthusiastically gave them to us.

Living on board the spacecraft is bewildering and fascinating. The astronauts are required to wear a specialized piece of equipment on take off and landing-- a pressurized

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space suit. While the craft is in its normal flight, it is alright to wear ordinary clothes. The spacecraft is divided into two levels, upper and lower. One astronaut is on the upper level, and one astronaut is on the lower level. They each conduct separate missions, and use walkie-talkies that are affixed to the legs to maintain contact.



Lousma (left)  
and Fullerton

The noise of the spacecraft is extremely loud, but it becomes better after entering space, and then it is extremely peaceful. On board the spacecraft, there is no terrestrial gravity force. People are in a state of weightlessness. It is easy to float about. Sleeping is very difficult, for it is necessary to strap oneself to a fixed location, otherwise, you cannot sleep very soundly. On the first day they were in space, neither of them could sleep very well. After a few days it became easier, and they were able to sleep six or seven hours every day. There, they must eat three meals a day. What they eat is dehydrated foodstuffs. Before they can eat, they must add water to the foodstuffs, place it in an oven (TN: literal in characters is 'heat machine') and then after it is heated, they can eat it. In space, they eat, among other foods, beefsteak, tangerine drink, shelled peanuts, sausage and eggs.

Without weight, it causes the astronauts to have a few laughs in space. If food is released from the hand, it just



floats up in space; using a foot to push off, one can ascend, and put it in his mouth and eat it. On one occasion, Fullerton was shaving and the razor blade floated away from his hand; he made a movement, causing his body to float nearer the razor blade so that it would come back into his hand, and then he finished shaving.

Aside from the strenuous work and their rest, they also perform various exercises on the spacecraft, such as running in place and callisthenics.

"When do you plan to fly again?"

"Those astronauts selected to participate in the 1983 'Columbia' space flights have already been chosen. The next astronauts are chosen a year in advance." You can see, there are many determined people in the United States who want to be "spacemen."

(photo credits: Feng Yu)